



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,337	05/25/2001	Darren Chen	586-26-PA	4860

22887 7590 10/30/2002

DISCOVISION ASSOCIATES  
INTELLECTUAL PROPERTY DEVELOPMENT  
2355 MAIN STREET, SUITE 200  
IRVINE, CA 92614

EXAMINER
----------

LAVARIAS, ARNEL C

ART UNIT	PAPER NUMBER
----------	--------------

2872

DATE MAILED: 10/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/866,337

Applicant(s)

CHEN, DARREN

Examiner

Arnel C. Lavarias

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 24 September 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

## DETAILED ACTION

### *Drawings*

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 9/24/02 in Paper No. 6 have been approved.
2. The corrected or substitute drawings were received on 9/24/02 in Paper No. 6.  
Figures 1 and 2 are found acceptable.
3. The drawings are objected to because of the following informalities:

→ Figure 9-  $n_2$  and  $n_3$  should have arrows pointing to their respective layers.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Vincent et al.

With regard to Claim 1, Vincent et al. discloses an optical device comprising a first optical coating plane (See 176 of Figure 20) and a second optical coating plane (See 178

Art Unit: 2872

of Figure 20) for respectively reflecting a first light (See beam reflecting off of coating 176 in Figure 20) and a second light (See beam reflecting off of coating 178 in Figure 20) to an identical optical axis (See combined beam reflecting off of coating 176 in Figure 20; col. 15, line 31-col. 16, line 5). Note that 170 and 172 are constructed exactly the same so that reference numbers associated to structure on 170 are exactly the same for 172 (See col. 16, lines 2-5).

With regard to Claim 3, Vincent et al. discloses the first light being a laser beam (See for example 394 in Figure 32; col. 21, lines 31-49).

With regard to Claim 4, Vincent et al. discloses the second light being a laser beam See for example 396 in Figure 32; col. 21, lines 31-49).

With regard to Claim 5, Vincent et al. discloses the first optical coating plane being parallel to the second optical coating plane (See 176 and 178 of Figure 20; Figure 3 or Figure 4; col. 6, lines 33-56; col. 15, line 31-col. 16, line 5).

With regard to Claim 6, Vincent et al. discloses the first light and the second light being generated at different timing (See for example col. 20, lines 47-64).

With regard to Claim 7, Vincent et al. discloses the first light being directly reflected to the optical axis by the first optical coating plane (See light beam reflecting off coating 176 in Figure 20), and the second light passing through the first optical coating plane and being reflected by the second optical coating plane (See light beam reflecting off coating 178 in Figure 20).

With regard to Claim 8, Vincent et al. discloses the first optical coating plane (See 176 in Figure 20) and second optical coating plane (See 178 in Figure 20) being respectively coated on two opposite sides of a first light-penetrable material (See 174 in Figure 20).

With regard to Claim 9, Vincent et al. discloses a second light-penetrable material (See 184 in Figure 20) for reflecting a third light (See light beam reflecting off of coating 182 in Figure 20) to the optical axis.

With regard to Claim 10, Vincent et al. discloses a third optical coating plane (See 182 in Figure 20) being coated on the second light-penetrable material (See 184 in Figure 20), and the third light passing through the first optical coating plane and the second optical coating plane and then being reflected to the optical axis by the third optical coating plane (See light beam reflecting off of coating 182 in Figure 20).

With regard to Claim 11, Vincent et al. discloses an optical device comprising plural optical coating planes (See 176, 178, 182 in Figure 20) for reflecting plural laser beams (See light beams reflecting off of 176, 178, 182 in Figure 20) to an identical optical axis (See combined light beam reflecting off of 176 in Figure 20). Note that 170 and 172 are constructed exactly the same so that reference numbers associated to structure on 170 are exactly the same for 172 (See col. 16, lines 2-5).

With regard to Claim 12, Vincent et al. discloses an optical device comprising a first optical coating plane (See 176 in Figure 20) and a second optical coating plane (See 178 in Figure 20) coated on two opposite sides of a light-penetrable material (See 174 in Figure 20) for reflecting a first light and a second light (See light beams reflecting off of 176, 178 in Figure 20) to an identical optical axis (See combined light beam reflecting off

Art Unit: 2872

of 176 in Figure 20). Note that 170 and 172 are constructed exactly the same so that reference numbers associated to structure on 170 are exactly the same for 172 (See col. 16, lines 2-5).

With regard to Claim 13, Vincent et al. discloses a second light-penetrable material (See 184 in Figure 20) for reflecting a third light (See light beam reflecting off of 182 in Figure 20) to said optical axis.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. in view of Vincent et al.

Kato et al. discloses an optical read/write head (See Figure 5). Kato et al. lacks the optical read/write head incorporating an optical device comprising a first optical coating plane and a second optical coating plane for respectively reflecting a first and a second light to an identical optical axis. However, Vincent et al. teaches the optical device as set forth above in Claim 1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the optical device as taught by Vincent et al. in the optical read/write head as disclosed by Kato et al. One would have been motivated to do this to simplify the optical path and reduce the cost and

Art Unit: 2872

weight of the optical read/write head by substituting the two beam splitters (See 303 and 307 of Figure 5 of Kato et al.) for the single optical device as taught by Vincent et al.

***Response to Amendment***

8. The amendments to the title of the disclosure in Paper No. 5, dated 9/24/02, is acknowledged and accepted. The objection to the title of the disclosure is respectfully withdrawn.
9. The amendments to the specification of the disclosure in Paper No. 5, dated 9/24/02, is acknowledged and accepted. The objections to the specification of the disclosure are respectfully withdrawn.

***Response to Arguments***

10. The Applicant argues that Vincent et al. lacks “a first optical coating plane and a second optical coating plane” which reflect two separate light beams to an “identical optical axis”, as set forth in the claimed combination. The Examiner respectfully disagrees. Vincent et al. specifically discloses a first optical coating plane (See 176 in Figure 20) and a second optical coating plane (See 178 in Figure 20) for respectively reflecting a first light (See beam reflecting off of coating 176 in Figure 20) and a second light (See beam reflecting off of coating 178 in Figure 20) to an identical optical axis (See combined beam reflecting off of coating 176 in Figure 20; col. 15, line 31-col. 16, line 5). Note that 170 and 172 are constructed exactly the same so that reference numbers associated to structure on 170 are exactly the same for 172 (See col. 16, lines 2-

Art Unit: 2872

- 5). Additionally, although the spectral ranges (i.e. wavelengths) of the optical beams have not been specified in the claims, the disclosed invention of Vincent et al. also combines optical beams of different spectral ranges (i.e. wavelengths; See col. 14, lines 25-41) just as the claimed combination (See also the specification, page 5, lines 22-25). Finally, with regard to Vincent et al. failing to teach the first light the second light being generated at different timings, Vincent et al. discloses this limitation in col. 20, lines 47-64. In particular, in lines 55-58, Vincent et al. specifically discloses that each of the optical generators generating each of the optical beams is modulated separately with a separate communication signal. Hence, each optical beam has a different modulation frequency (i.e. each optical beam is turned on and off at different timings).
11. The Applicant argues that the Examiner has used hindsight reasoning for using the combined teachings of Kato et al. and Vincent et al. to reject Claim 2. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Additionally, one of ordinary skill in the art would recognize that Vincent et al. discloses multiple beam optical read heads (See for example Figures 12-15 in Vincent et al.) that are modifiable with the teachings presented in Kato et al.



*Conclusion*

12. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 703-305-4007. The examiner can normally be reached on M-F 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on 703-308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Art Unit: 2872

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.



Arnel C. Lavarias  
October 28, 2002



**Cassandra Spyrou**  
Supervisory Patent Examiner  
Technology Center 2800